

**In the Specification:**

Please replace the paragraph beginning on page 12 line 8 with the following amended paragraph:

*a1* **Figures 5A, 5B, 5C and 5D** is are a flowchart illustrating a procedure for call

"setup" at an originating Base Station of a WPBX;

Please replace the paragraph beginning on page 12 line 11 with the following amended paragraph:

*a2* **Figures 6A and 6B** is are a flowchart illustrating a procedure for call "setup"

at a receiving Base Station of a WPBX;

Please replace the paragraph beginning on page 12 line 14 with the following amended paragraph:

*a3* **Figures 7A, 7B and 7C** is are a flowchart illustrating a procedure for call

"setup" at a Switch of a WPBX;

Please replace the paragraph beginning on page 13 line 9 with the following amended paragraph:

*a4* **Figures 13A and 13B** is are a schematic block diagram illustrating a passive

method for detecting arrival of a handset in a Base Station's coverage area during a call, according to the invention;

Please replace the paragraph beginning on page 13 line 25 with the following amended paragraph:

as

**Figures 16A-16B** is are a flowchart illustrating a procedure that Base Stations may use to detect a handset that enters their coverage area, according to the invention;

Please replace the paragraph beginning on page 13 line 28 with the following amended paragraph:

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**Figure 16||B||C** is a flowchart illustrating a procedure that Base Stations may use to determine that a handset connected to them is moving into the coverage area of another Base Station, according to the invention;

Please replace the paragraph beginning on page 14 line 27 with the following amended paragraph:

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**Figures 23A and 23 B** is are a flow chart illustrating a procedure for transmitting "PING" commands to a handset and receiving "ECHO" responses from the handset, when the Base Station originating the "PING" command is the same Base Station the handset is currently connected to, according to the invention; and

**Please replace the paragraph beginning on page 19 line 19 with the following amended paragraph:**

*a8*  
**Figures 5A, 5B, 5C, 5D, 6A, 6B, 7A, 7B and 7C** illustrate call setup procedures for a single call at an "originating" Base Station (e.g., 123), at a "receiving" Base Station (e.g., 124), and at the Switch (e.g., 129), respectively. Call setup between the handset (e.g., 121) and the Base Station it is connected to (e.g., 123) is suitably performed according to standard telephony protocols, for example ITU-T Q.931. A similar protocol is a part of the Bluetooth protocol stack. However, the present invention is not limited to a specific protocol for call setup.

**Please replace the paragraph beginning on page 19 line 27 with the following amended paragraph:**

*a9*  
**Figures 5A, 5B, 5C and 5D** illustrate[[s]] a call setup procedure performed by an originating Base Station (e.g. 123) when a handset (e.g., 121) that is connected to it, tries to initiate a call. As shown in the step 151, the handset that is originating the call sends a destination number (DN). In a next step 152, the originating Base Station (e.g., 123) checks whether the destination handset (e.g., 133) is in its "Base Station Connection Table"--in other words, whether the destination handset is in the originating Base Station's coverage area. If not (step 152, "N"), in a step 160 the destination number (DN) is sent via the communications link (e.g., LAN 140) to the central WPBX Switch (e.g., 129). The originating Base Station then sets a timeout (step 161), and waits for a reply from the Switch. The timeout set in the step 161 is

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suitably on the order of up to 5 seconds. Next, it is determined in a step 162 whether there is a timeout.

Please replace the paragraph beginning on page 22 line 1 with the following amended paragraph:

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c. to a DN outside of the WPBX coverage area and is to be routed through a Gateway (see **Figures 7A, 7B and 7C**) associated with the Switch (steps 170, 171).

Please replace the paragraph beginning on page 22 line 12 with the following amended paragraph:

a11

**Figures 6A and 6B** illustrate[s] the call setup procedure performed at a destination Base Station (e.g., 124) which is receiving a call, whether it be from another Base Station or from the Switch. When the destination Base Station receives a request (step 201) to connect a call to a handset (e.g., 133) which is reportedly within its coverage area, it first checks (step 202) whether the handset is already communicating with (connected to) it. If the handset is already connected to the Base Station (step 202, "Y"), the Base Station tries to connect the call to the handset. A timeout is set (step 203), again on the order of up to 5 seconds, and the Base Station waits (step 204).

Please replace the paragraph beginning on page 23 line 3 with the following amended paragraph:

*a12*  
**Figures 7A, 7B and 7C** illustrate[[s]] the call setup procedure performed at the Switch (e.g., 129). The Switch handles two types of messages, one is a request to establish a new call, and the other is an update to the status of the call. In a step 231, it is determined whether the request is for a new call (step 231, "Y") or a request to update a call (step 231, "N").

Please amend the paragraph beginning on page 24 line 8 with the following amended paragraph:

*a13*  
The procedure described in **Figures 7A, 7B and 7C** is also applicable to the case when more than one Gateway connects to the WPBX to the PSTN--for example, in a case where two branch offices share a single WPBX, and each has its own independent connection to the PSTN. The main difference would be that when the Switch handles an outgoing call, it will determine to which Gateway to send the call. This can either be done randomly, or can be pre-determined. The handling of the incoming calls would proceed as set forth above in **Figures 7A, 7B and 7C**.

Please replace the paragraph beginning on page 24 line 16 with the following amended paragraph:

*a14*  
**Figures 5A, 5B, 5C, 5D, 6A, 6B, 7A, 7B and 7C** have illustrated a call setup procedure for the handling of a single call. When either the Base Stations or the

*a14*

Switch need to handle more then one call, several instances of these procedures can be run in parallel. For that purpose, both Base Station software and Switch software are preferably based on a real time operating system that supports multi-tasking. For each new call, a new task will be created, and the task will perform the procedures described in **Figures 5A, 5B, 5C, 5D, 6A, 6B, 7A, 7B and 7C**. The task will be closed when the procedure is completed.

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**Please replace the paragraph beginning on page 24 line 30 with the following amended paragraph:**

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*a15*

**Figure 22** illustrates the division of the Base Stations, into two groups; a first group (Group A) 1050 comprising a plurality (four shown) of Base Stations 1050a, 1050b, 1050c and 1050d; and a second group (Group B) 1051 comprising a plurality (four shown) of Base Stations 1051a, 1051b, 1051c, 1051d. The Base Stations of Group A are connected to a first Switch (Switch A) 1052, and the Base Stations of Group B are connected to a second Switch (Switch B) 1053. The Base Stations and the Switches function according to the procedures described in **Figures 5A, 5B, 5C, 5D, 6A, 6B, 7A, 7B and 7C**. All the Switches mirror all the status tables of the other Switches, i.e. by having copies of each other's "Calls Table" and "Connections Table". When a Switch updates one of its status tables, it sends the information to all the other Switches, and they update their tables accordingly. In order for this process to be reliable, the other Switches will send an indication that the message was received. If the originating Switch does not receive such a reply within T.sub.1 milliseconds, it will retransmit the message. The retransmission will be repeated up to P times. For example T.sub.1 shall be equal to 100, and P shall be equal to 5.

**Please replace the paragraph beginning on page 26 line 7 with the following amended paragraph:**

The "Originating Base Station Identification" and the "Destination Base Station Identification" are updated when a handset moves from one Base Station to another. The Switch updates these fields when it determines that the handoff should occur. During handoff, for a short time, there may be uncertainty about the validity of these fields. The Base Stations compensate for the uncertainty by "multicasting" the call setup messages to a group of Base Stations, as described hereinabove with respect to **Figures 5A, 5B, 5C, 5D, 6A and 6B** (see, e.g., steps 180, 181, 211, 212).

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**Please replace the paragraph beginning on page 43 line 16 with the following amended paragraph:**

**Figures 13A and 13B** illustrate[[s]] major components of a Base Station 1300, waiting for handoff, and a method of accurately synchronizing the TOD at the Base Station to the TOD of the Base Station, which the handset is about to leave, and a **passive** method for detecting the arrival of a handset in a Base Station's coverage area during a call, including:

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Please replace the paragraph beginning on page 43 line 30 with the following amended paragraph:

*a18*  
**Figures 13A and 13B** illustrate[[s]] a passive method for determining which handsets' (i.e. handset which is participating in a call with a certain device address) transmissions is being received by a Base Station.

Please replace the paragraph beginning on page 44 line 29 with the following amended paragraph:

*a19*  
In **Figures 13A and 13B** up to 'K' handsets can simultaneously be detected. The main advantage of the method described above is that since the detection is passive, there is no need to achieve fine synchronization between Base Stations. Another advantage of this passive method is that there is no need to decode the messages that the handset transmits, and therefore it is relatively easy to implement.

Please replace the paragraph beginning on page 51 line 15 with the following amended paragraph:

*a20*  
**Figures 16A and 16B** illustrate[[s]] a technique (procedure) for detecting a handset that enters the coverage area of a Base Station when (as in the example of **Figure 15B**) the Base Station that the handset is currently connected to generates the "PING" command that is sent to the handsets. All of the Base Stations (e.g., 391-397; **Figure 14A**) preferably perform the same detection procedure, whether they the handset is connected with them or not.

**Please replace the paragraph beginning on page 52 line 24 with the following amended paragraph:**

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**Figure 16||B||C** illustrates a procedure that a Base Station performs when it receives an "ECHO" response from one of the handsets that are connected to it (from **Figure 16A**, step 419, "Y"). The "ECHO" response can be received either when the connected Base Station or one of its neighbors sends a "PING" message to the handset. (See, e.g., **Figures 15A and 15B.**)

**Please replace the paragraph beginning on page 53 line 10 with the following amended paragraph:**

a22

**Figures 16A, 16B and 16||B||C** illustrated the procedure of transmitting the "PING" from the Base Station that the handset is connected too, and detecting the arrival of a handset from a neighboring Base Station.

**Please replace the paragraph beginning on page 53 line 14 with the following amended paragraph:**

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**Figures 23A and 23B** illustrate[[s]] a procedure for performed by the Base Station when reception or transmission of a hop is required (steps 1200, 1201). Once in K hops (step 1202), if the next time slot is for transmission (step 1203), the Base Stations sends a "PING" to one of the handsets that are connected to it. **Tcount** is incremented (step 1204), and the next handset that appears in the list of handsets

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(Connection Table, or "ConTab") that are connected to the Base Station is chosen (step 1205).

**Please replace the paragraph beginning on page 53 line 30 with the following amended paragraph:**

*A24*

When an "ECHO" response is received (**Figure 16A**, step 425; or **Figure 16||B||C**, step 433; or **Figure 23B**, step 1212), the following data is sent to the Switch:

**Please replace the paragraph beginning on page 54 line 13 with the following amended paragraph:**

*A25*

Two methods for detecting that a handset moves from one Base Station to another have been described hereinabove. The first handset detection method (**Figures 13A, 13B, 14A, 14B, 14C, 14D**) is based on passive monitoring of the handset. In the second handset detection method (**Figures 15A, 15B, 16A, 16B, 16C**) the handsets are actively "PING"ed, and their "ECHO" responses are noted. Using either one of these two methods, a Base Station that is connected to a handset continuously sends received quality measurements to the Switch and, when a neighboring Base Station detects a handset, a quality measurement is also sent by the neighboring Base Station to the Switch. A Base Station receiving an "ECHO" from one of the handsets that are connected to it (e.g., **Figure 15B**), also sends the quality measurement to the Switch. The decision as to when to perform handoff, between one Base Station and another, is made at the Switch, which uses these signal quality

*A2S*

measurements from the Base Stations to determine the time for and destination of a handoff. **Figure 17A** illustrates a method for making the handoff decision, when a passive detection method is used. **Figure 17B** illustrates a method for making the handoff decision, when an active detection method is used.

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Please replace the paragraph beginning on page 61 line 26 with the following amended paragraph:

*A26*

**Figure 20** illustrates the implementation of detection and time synchronization method that is based on a correlator. As described hereinabove, the correlator/detector (308) was the basis for synchronization of TOD in **Figure 11**, and for the detection of presence of a transmitter and synchronization in **Figures 13A and 13B**.

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Please replace the paragraph beginning on page 67 line 13 with the following amended paragraph:

*a27*

Most of the preceding sections discussed the use of the methods disclosed in the current invention for a WPBX supporting telephony applications. Except for the methods shown in **Figures 5A, 5B, 5C, 5D, 6A, 6B, 7A, 7B and 7C**, most of the methods disclosed hereinabove are application independent, as follows:

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